

## **Demographics inform disparities in travel around northeastern Illinois**

*This policy brief is the second in a series of four exploring the data from the Chicago Metropolitan Agency for Planning's (CMAP) most recent regional travel survey, [My Daily Travel](#). My Daily Travel is CMAP's fifth travel survey, a primary-source data collection undertaken every decade to generate a detailed picture of how and why people travel within northeastern Illinois. It draws from a representative sample of more than 12,000 regional households.*

*The second policy brief investigates disparities in how regional residents experience the transportation system. It explores how those experiences vary based on demographic characteristics, such as age, household income, and race and ethnicity. The first piece in this series examined data about everyday travel patterns. The third and fourth pieces highlight new and emerging trends in mobility, such as a pre-COVID baseline of telecommuting behavior, the rapid growth of transportation network companies (TNCs), and the emergence of bike-sharing systems in the region.*

*Note on COVID-19: The My Daily Travel survey reflects travel patterns and preferences in the region as of 2019, prior to the COVID-19 pandemic. Although travel patterns have changed in response to the pandemic, this 2019 survey can reveal long-term travel trends that may reassert themselves as recovery continues.*

### **Key findings**

- Average travel behavior in the region differs by demographic group. For example, Black residents faced the longest travel times for a range of trips. These include trips to work, as well as trips to school, health care appointments, and grocery stores.
- White travelers took the greatest number of trips in the region each day. They also took longer average trips than did other regional travelers.
- Men's trips were longer in both distance and time than women's trips. But women took more trips than men did.
- Individuals with disabilities were the least likely to travel on a given day, along with residents from households with low incomes, older residents, and non-white residents.
- Although travel in the region modestly declined overall between 2008 and 2019, travelers from low-income households actually increased their travel over the same period.

Northeastern Illinois' transportation system is enormous and complex, supporting millions of travelers who move more than a hundred million miles each day. Different users have different experiences, based on factors such as income, age, or race and ethnicity. While the first policy brief in this series focused on the scale of the system — the *when*, *where*, *why*, and *how* of travel — this piece focuses on the *who* and explores variations, possible causes, and consequences for the region.

### Average travel statistics can conceal important differences

The average traveler in the region took 3.9 trips per day in 2019, with each trip covering 4.5 miles.<sup>1</sup> However, distinct patterns emerge when examining how those trends vary by who is traveling. The figures below reveal how the likelihood of weekday travel, average travel patterns, and overall changes since 2008 vary according to race and ethnicity, household income, age, sex, and disability status.

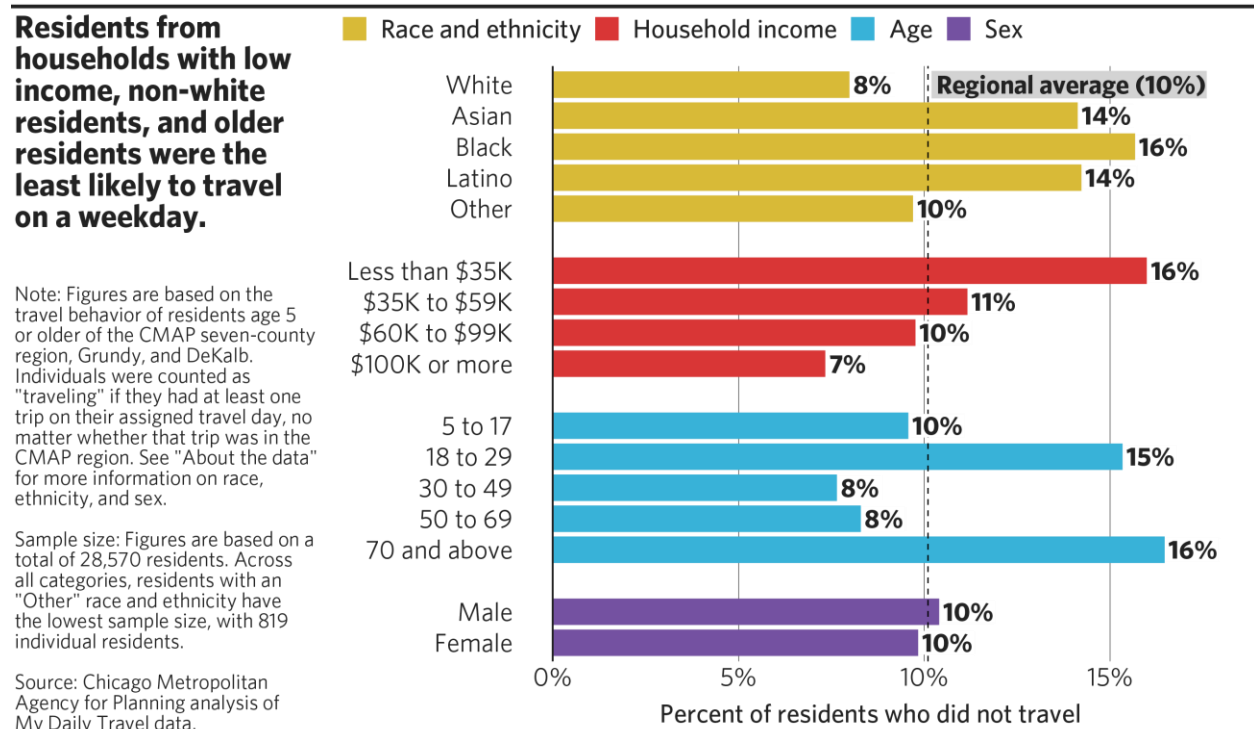


Figure 1

**Average travel patterns vary significantly based on demographic characteristics.**

Note: Figures are calculated based only on individuals who traveled and thus exclude individuals with zero trips. Includes trips by travelers age 5 and older who live in the CMAP seven-county region, Grundy, and DeKalb. Distances are point-to-point and do not account for additional distance traveled along the route. See "About the data" for more information on race, ethnicity, and sex.

Sample size: Figures are based on a total of 24,625 travelers. Across all categories, travelers with an "Other" race and ethnicity have the lowest sample size, with 702 individual travelers.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

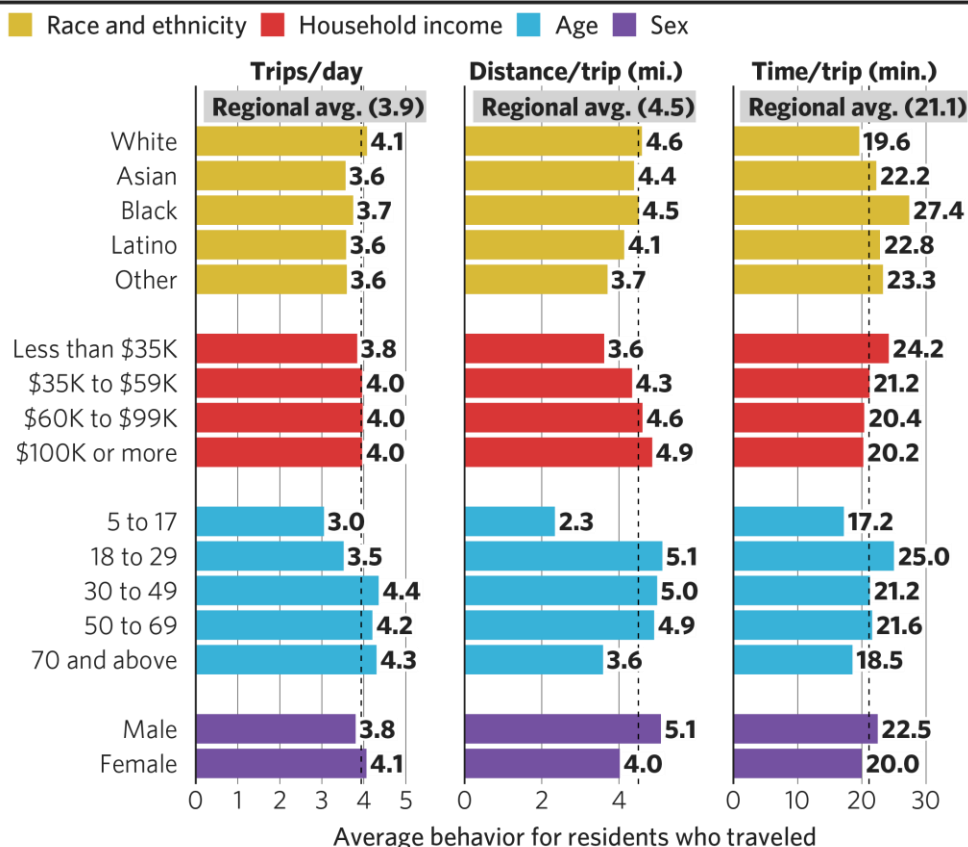


Figure 2

### Race and ethnicity

Of all racial and ethnic groups, white residents were the likeliest to travel on a weekday. Fewer than one in 10 white travelers stayed at home. Black residents were the least likely to travel, with one in six reporting zero trips. Compared to the regional average of one in 10, Latino and Asian residents also were more likely to stay at home, with 14 to 15 percent not traveling.

When examining only those who traveled, white travelers took the greatest number of trips each day (4.1). In contrast, travelers from other racial and ethnic groups took an average of 3.7 trips a day or fewer. Among the overall population, including both travelers and non-travelers, these differences are even greater, white residents also were the likeliest to travel on a given day.

White travelers also traveled the longest for each of their trips (4.6 miles). This was slightly more than the totals for Black and Asian travelers (4.5 and 4.4 miles, respectively). It also was a half-mile more than the Latino average of 4.1 miles. Despite this length, white residents also spent the least amount of time when traveling. Black travelers had the longest average trip durations — more than 27 minutes. That average was 8 minutes longer than the duration of trips made by white residents, who on average traveled for fewer than 20 minutes.

## Household income

Travel behavior also varied significantly based on household income in the region. As shown in Figure 1, residents from households with low incomes were the least likely to travel. One in six of all residents (or 16 percent) from households making less than \$35,000 reported staying at home on a given day. As household income increased, so did the likelihood of travel. Only 7 percent of residents from households making \$100,000 or more reported they did not travel.

These variations are significant. Travelers across income brackets took roughly the same number of trips. But the average resident (including non-travelers) from households with low incomes took substantially fewer trips than the regional average.

Figure 2 also shows even more disparities for travelers from households with low incomes, compared to the rest of the region. Travelers from households making less than \$35,000 took 0.1 fewer trips a day and traveled 1.3 fewer miles for each trip than did travelers from households making the most (\$100,000 or more).<sup>2</sup> Despite those shorter distances, travelers from low-income households spent *more* time traveling than those from high-income households — an extra four minutes on each trip.

### In contrast to the overall regional decline, lower-income travelers reported more travel in 2019 than in 2008.

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Household incomes are not adjusted for inflation, and so there may be some households from Travel Tracker that should be compared to the next-highest household income category.

Sample size: Figures are based on a total of 24,625 travelers for My Daily Travel and 24,065 for Travel Tracker. Travelers with \$35K-\$59K in household income in My Daily Travel have the lowest sample size, with 2,994 individual travelers.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel and Travel Tracker data.

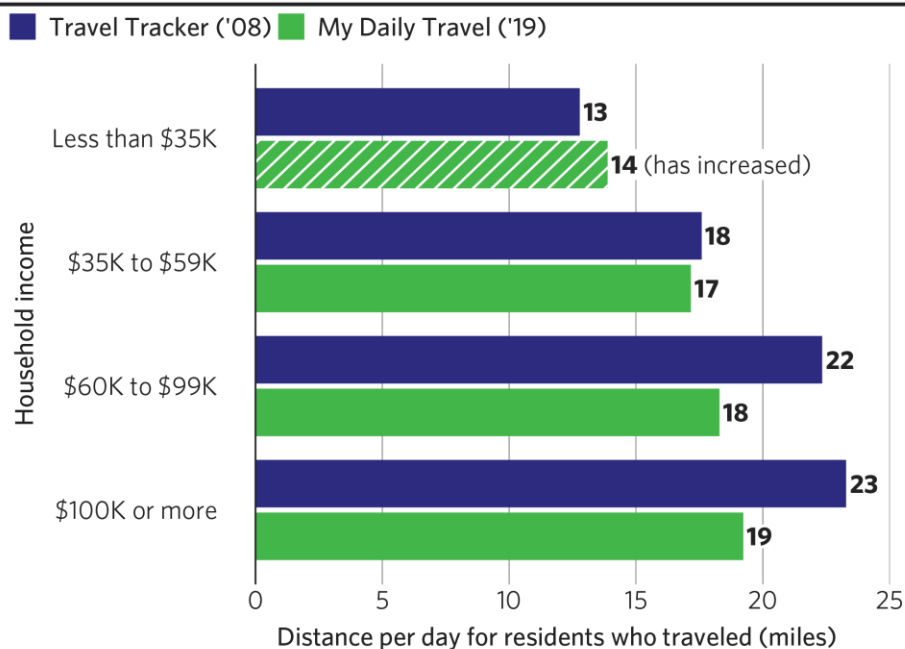


Figure 3

These patterns also have shifted since 2008. Most notably, travelers with lower household income, as shown in Figure 3, appear to have increased the average daily distance they traveled between 2008 and 2019. Travelers with less than \$35,000 in household income traveled an additional mile a day. In contrast, travelers with household incomes of \$35,000 or more traveled up to 4 miles less each day.

However, residents from low-income households still traveled fewer miles than did others in the region, even after accounting for their recent increase. Their higher average trip times — 20 percent of an average trip — likely contributed to the lower overall levels of trips made by residents from low-income households.

But other factors, such as cost, likely also played a role. For example, in the 2021 report, [Improving equity in transportation fees, fines, and fares](#), CMAP highlighted the disproportionate burden households with low income face with using the regional transportation system. These disparities can help inform public deliberations about potential changes to transportation revenue sources, especially ones like [road usage charges](#) that are calculated based on the total distance traveled. They also highlight the need for regional strategies when evaluating land use, development, and the interaction between the locations of homes, businesses, and the transportation systems that link them.

### *Age*

Across all demographic breakdowns in Figure 1, the region's oldest travelers (age 70 and older) were among the least likely to travel. One in six did not travel, compared to a regional average of one in 10. Travelers age 18 to 29 were slightly less likely to remain at home than seniors, with other age groups more likely to travel than the regional average.

As shown in Figure 2, significant disparities existed by age among residents who traveled. The oldest travelers actually maintained roughly the same number of trips a day (or more) as their younger counterparts. However, the oldest travelers tended to take shorter trips in both distance and time. In contrast, adults age 18 to 29 had the longest travel times of any age group — more than three minutes longer per trip than those of the next-highest age group.

By understanding these variations, public officials can better tailor policies and programs to improve regional outcomes, transportation or otherwise. For example, as the region's population ages, more travelers will fall into the 70 or older category. Residents in this age group who are able to travel take just as many, if not more, trips than do those from other age groups in the region. But they stay closer to home while traveling. Other seniors who may not travel today might do so if they had more or different travel options, such as dial-a-ride services or better sidewalk connections. Providing additional travel options can help [prevent social isolation](#), a leading determinant of health among seniors. Supporting the needs of these travelers often requires deliberate public action, which CMAP has previously highlighted through its toolkit on [aging in place](#).

### *Sex*

Compared to other breakdowns, men and women had a closer likelihood of travel, varying by less than one percentage point. However, among those who did travel, greater differences in average travel behavior emerged. For example, Figure 2 shows women took 4.1 trips a day versus 3.8 for men.

When traveling, though, women did not go as far as men did, with their average trips more than a mile shorter than those of men. Women's trips also took less time, with a difference of more than two minutes versus the average travel time for men. These differences in trip distances and durations may relate to women's lower rates of [labor force participation](#). A person's commute to work often is the longest trip they make on a regular basis. The greater number of daily trips for women could be the result of their personal responsibilities. Women generally bear the [higher share](#) of child care and household responsibilities, which might require them to take more trips closer to home.

As CMAP recently [highlighted](#), the COVID-19 pandemic has further exacerbated some of these disparities. By understanding these variations, public officials can better evaluate the impact of existing policies. They also can consider new policies, such as improving transit connections for non-Loop trips. In doing so, officials can ensure the transportation system serves the [needs of both](#) those commuting to work and those who rely on it as part of their child care or household responsibilities.

#### *Disability status*

The My Daily Travel survey also provides insights into the travel behavior of the hundreds of thousands of residents who have one or more disabilities, such as mobility, vision, or hearing impairments.

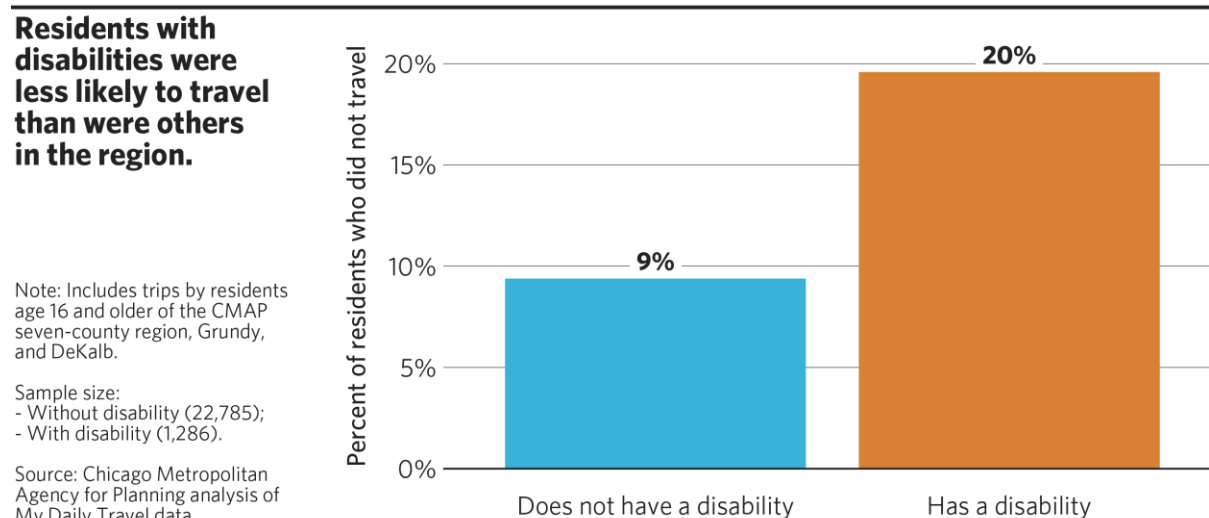


Figure 4

Most notably, residents with disabilities were significantly more likely to stay at home on an average day. One in five residents with disabilities did not travel, compared to fewer than one in 10 for other residents. That share is also higher than that of any of the demographic groups discussed above in the chart.<sup>3</sup> Research also has found these transportation challenges

significantly [hinder access](#) to employment and [health care](#), as well as contribute to physical and [social isolation](#).

As with other demographic breakdowns, average travel behavior varied among residents who traveled. Individuals with disabilities took roughly the same number of daily trips as did other residents. But their trips were both shorter in distance and longer in duration than those of other travelers. This may be because paratransit and many other mobility options available to residents with disabilities take longer on average than other transportation services in the region.

The region has made significant progress toward a more accessible transportation system since the Americans with Disabilities Act (ADA) became law in 1990. But much work remains. CMAP and its regional partners have developed resources for local governments to enhance accessibility. These resources include [toolkits](#) to develop federally mandated ADA transition plans, as well as [recommendations](#) for public officials on how to improve accessibility for all.

### Travel by car was highest among white, older, and wealthier residents

While travelers in the region used a car for most trips in 2019, the reliance on cars varied significantly across demographic groups.

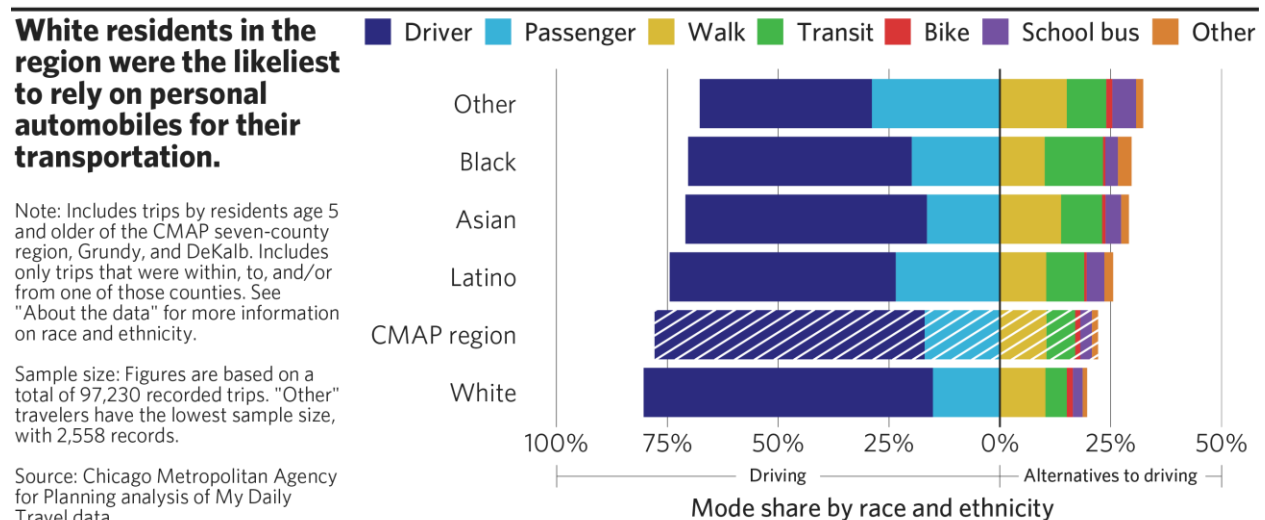


Figure 5

For example, white residents in northeastern Illinois were the least likely to use other forms of transportation, such as transit, biking, and walking. White residents' use of non-car modes represented only 20 percent of all trips. In contrast, Latino residents relied on non-car modes for 26 percent of their trips. Black and Asian residents relied on non-car modes for nearly 30 percent of all trips. Multiracial residents and those from other racial and ethnic groups relied on non-car modes for almost a third of all trips.



**Households with less than \$35,000 in income were the most reliant on non-car modes, but the highest-income households also neared the regional average.**

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties.

Sample size: Figures are based on a total of 97,230 recorded trips. Travelers with household incomes below \$15,000 have the lowest sample size, with 4,119 records.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

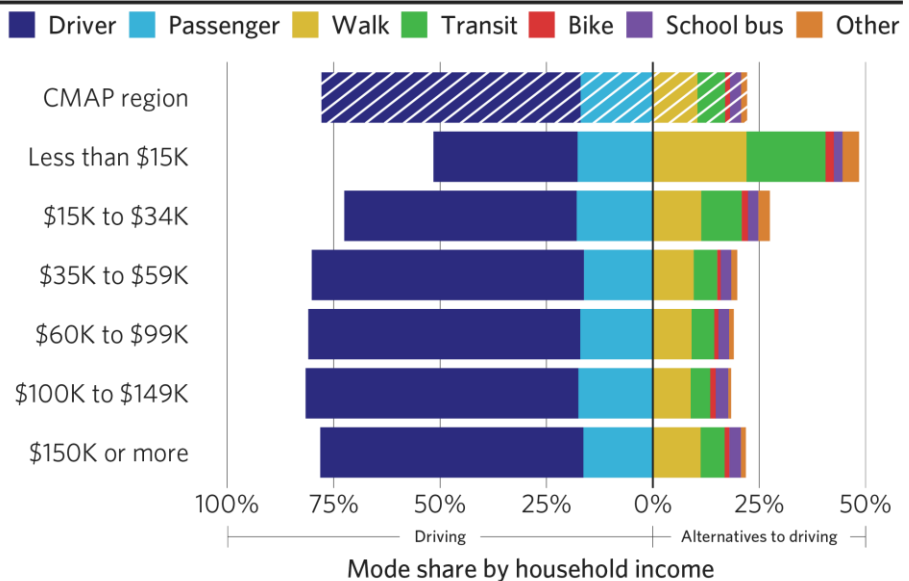


Figure 6

These differences are even greater when considering other characteristics, such as household income. Residents from households with the lowest income (\$15,000 or less a year) relied most on modes that did not require a car. These households used transit, walking, biking, or other non-car modes for nearly half of all their trips (48 percent). As incomes increased, households' reliance on cars did, as well. This pattern remained consistent until incomes reached roughly \$100,000 to \$150,000 a year. Households at those income levels used a car for more than 80 percent of all their trips. At higher incomes, households earning more than \$150,000 a year actually relied less on their cars, with their non-car-mode share slightly under the overall regional average.

Although the reasons behind individual travel choices vary greatly, survey data provides some context for these disparities in the region. For example, lower-income households took transit at a much higher rate than did other travelers in the region. This was likely due in part to transit's relative affordability compared to the [high costs](#) of owning and operating a personal car.



### Travelers from low-income households use transit for a much wider range of trips than those from other households.

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties. Unlabeled bars have less than 5 percent mode share.

Sample size:  
 - <\$15K (1,171)  
 - \$15-34K (1,366)  
 - \$35-59K (1,389)  
 - \$60-99K (2,180)  
 - \$100-149K (2,003)  
 - ≥\$150K (2,041)

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

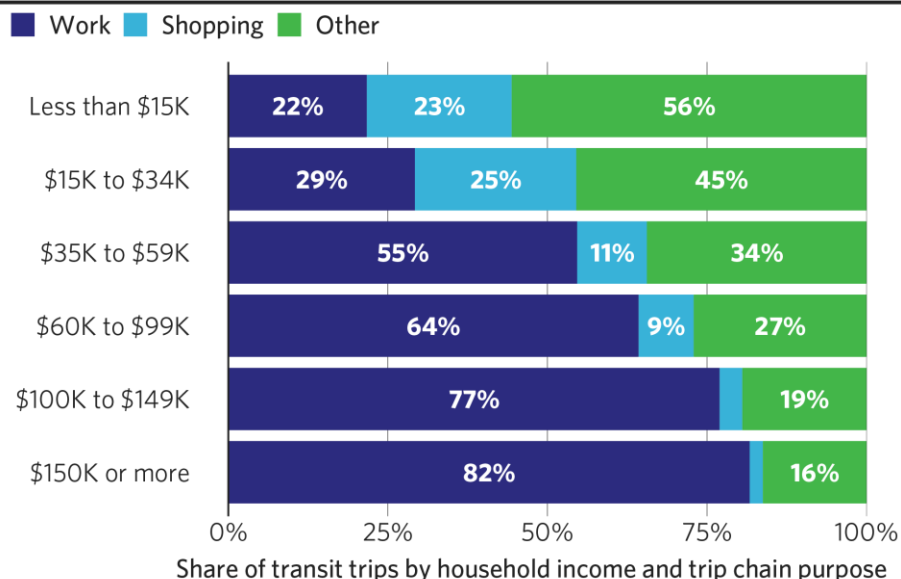


Figure 7

As shown above in the chart, residents from lower-income households also relied on transit for all kinds of trips. Among households earning less than \$35,000, work trips accounted for only 20 to 30 percent of all transit journeys. Although residents from the highest-income households also took transit, many of them used transit almost exclusively for work trips (82 percent).

Disparities also exist among the types of transit taken by travelers from different household incomes. While residents from high-income households throughout northeastern Illinois relied almost exclusively on commuter rail or subway trains, residents from lower-income households typically took buses.

### Children and young adults relied more on non-car modes.

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties.

Sample size: Figures are based on a total of 97,230 recorded trips. Travelers 70 and older have the lowest sample size, with 4,298 records.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

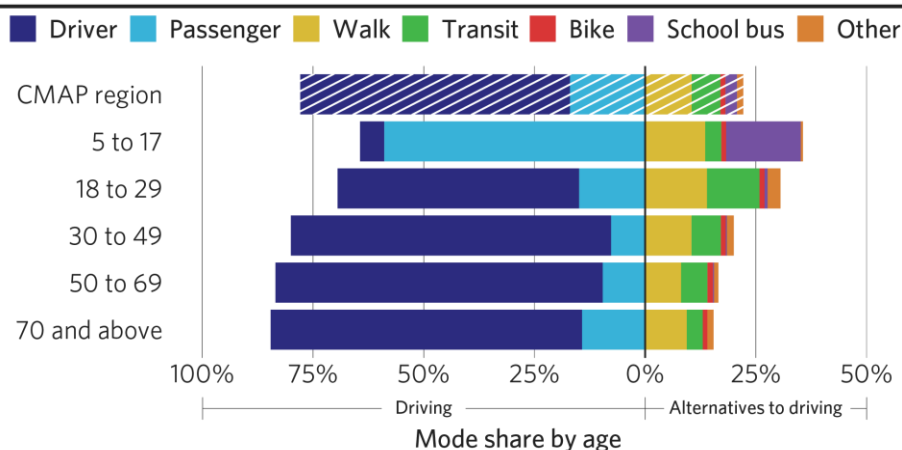


Figure 8

Travel behavior also varied by age. As shown in Figure 8 above, the youngest travelers relied the least on cars, with those younger than 30 using non-car modes for more than 31 percent of all their trips. For children age 5 to 17, they either walked or took a school bus for most non-car trips. In contrast, travelers between 18 and 29 years old relied more on transit, which accounted for 12 percent of their trips compared to the regional average of 7 percent.

As travelers in the region age, they rely more on cars. People 70 years and older took non-car modes for a low of 15 percent of all their trips. However, today's 25-year-olds may not shift, or shift as dramatically, in their transportation choices over the coming decades. Whether they do so, and to what extent, will depend on available options, as well as the habits they form (or break) as the region recovers from the impacts of the COVID-19 pandemic.

### Black travelers often faced the longest journeys

The My Daily Travel survey also reveals significant disparities in specific types of trips. For example, as past CMAP research has [shown](#), Black residents in northeastern Illinois have the longest commutes to work. According to My Daily Travel, Black travelers had an average commute to work of 35 minutes versus 30 minutes or fewer for other residents of the region.

#### Black residents in the region had significantly longer trips to work, health care, and routine shopping than those of other residents.

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. See "About the data" for more information on race and ethnicity.

Sample size (Black/Other/Latino/Asian/White):  
 - Work (687/233/990/567/9,557);  
 - Health (227/47/152/46/1,567);  
 - Shop (742/169/493/206/5,044).

Although sample sizes for "Other" and "Asian" health trips are low, the estimates are similar for weighted and unweighted totals.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.



Figure 9

Some of this disparity is the result of different modal choices. Black travelers were likelier to take transit than were other residents. But when considering trips by transit, driving, or walking, Black travelers still had the longest average commute times in the region.

As shown above in the chart, these disparities were not restricted to work trips. Compared to other residents in the region, Black travelers faced longer trips across a range of purposes, including trips to the grocery store or doctor. The different modes that these travelers relied on may explain some, but not all, of these disparities. Another factor may be the [location and proximity of assets](#) — jobs, fresh food, health care, and more — in the region.

**Black elementary and middle school students had longer trips to school than those of other children.**

Note: Includes school trips for residents of the CMAP seven-county region, Grundy, and DeKalb who are enrolled in K-8 and age 5 or older. Excludes trips to non-school locations, longer than 2.5 hours, and that did not start or end between 7:00 a.m. and 9:00 p.m. See "About the data" for more information on race and ethnicity.

Sample size:  
 - Black (214);  
 - Latino (340);  
 - Asian (118);  
 - Other (168);  
 - White (1,779).

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

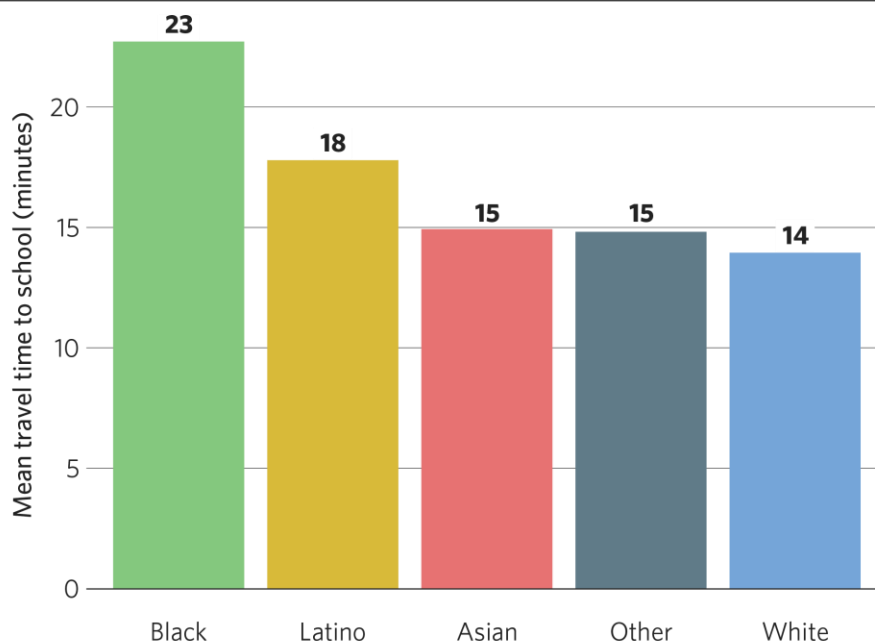


Figure 10

Disparities even emerged among the trips of the region's youngest travelers. Black elementary and middle school students on average took 23 minutes to travel to school versus 14 to 18 minutes for other children.<sup>4</sup> This finding is consistent with studies from other places like New York City, where a research organization found that Black students face [lengthier school trips](#) than other students do.

Individually, each of these trip-time disparities might seem inconsequential. In the context of an entire day, five or 10 minutes more to travel is not so much time. But these disparities add up. CMAP's findings imply Black elementary and middle school children spend an extra six hours traveling to and from school each month compared to their peers. Delays also exist across trip types and purposes for the region's Black residents, regardless of age. Today's longer trip to and from school might be the first of many such delays for Black children in the region. Across a lifetime, Black residents who experience these delays may spend more time getting from place to place and less time spent enjoying the benefits that a reliable and accessible transportation system provides.

Although these patterns have persisted over decades, they are not inevitable. CMAP previously outlined the value of improving the reliability and [accessibility](#) of transportation [options](#) that connect Black communities and other communities of color to the region’s many assets and opportunities.

ON TO 2050, the region’s long-range plan, also highlights the importance of investing in historically [disinvested communities](#) to strengthen employment opportunities and infrastructure. To achieve this, some regional funding programs, such as CMAP’s Surface Transportation Program (STP) Shared Fund, now explicitly include criteria to [improve transportation](#) options for minority residents of low-income households. However, addressing these disparities — many of which the pandemic has [worsened](#) — will take years of sustained effort. As the region recovers, public officials need to consider ways to lessen inequities, so that the transportation system can support a region with inclusive growth and mobility for all.

### **Looking ahead**

With northeastern Illinois beginning to recover from the pandemic, public officials must now contemplate what the “new normal” of the regional transportation system looks like. While immense, the disruption created by the pandemic also provides the region with an opportunity to confront longstanding inequities. CMAP will continue to elevate the need to address regional disparities, both during the region’s recovery from the pandemic and beyond.

### **Actions for public officials**

- Prioritize investments that increase connectivity between the region’s marginalized communities and destinations like employment centers, schools, and more.
- Consider and address the equity implications of new transportation projects and initiatives.
- Make investments to improve the reliability, frequency, and accessibility of transit service across the region, particularly where it can best serve the mobility needs of transit-dependent residents.
- Implement recommendations identified in CMAP’s recent [Improving equity in transportation fees, fines, and fares](#) report to address broader transportation inequities.
- Support older travelers and those with disabilities by accommodating their transportation needs. This could include completing federally mandated ADA transition plans, making public transit facilities more accessible, educating residents about paratransit options, and adopting “complete streets” policies that make roads safer for all users.

Unless otherwise cited, the analyses in this series of policy briefs rely on publicly available data from CMAP’s My Daily Travel (2019) and Travel Tracker (2008) surveys. Both surveys are available on CMAP’s [Data Hub](#). CMAP used R, a free open source statistical package, to analyze the data. The R scripts used to perform these analyses are available on CMAP’s [GitHub page](#). In addition to these scripts, the GitHub page includes information about the assumptions used and data exclusions applied. Partners are encouraged to use and build on this analysis to understand travel dynamics relevant to their constituents and stakeholders.

For all references to race and ethnicity, “Latino” includes respondents who identified as Latino or Hispanic, regardless of racial category. All other race and ethnicity categories are non-Latino. For the categorization by sex, the My Daily Travel survey asked respondents whether they were male or female. A small number of respondents chose not to answer, either because the available options were not sufficient or for some other reason. Due to low sample sizes and weighting concerns, average travel behavior statistics are unavailable for this population.

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<sup>1</sup> These distances are point-to-point (“haversine”) and do not account for additional mileage traveled on the route.

<sup>2</sup> These differences do not align with the totals displayed on Figure 2 due to rounding.

<sup>3</sup> Note that the averages included in Figures 1, 2, and 3 are based on the population age 5 and older. In comparison, figures for residents with disabilities are based on the population age 16 and older. However, even when excluding residents age 15 and younger, individuals with disabilities have the highest rate of non-travelers of any considered demographic group.

<sup>4</sup> Similar disparities exist for median travel times, and those at the 25<sup>th</sup>, 75<sup>th</sup> and 90<sup>th</sup> percentiles. As with the disparities for older Black travelers, some of this variation is due to differences in mode choice and travel distance – Black children are more likely to rely on modes with slower average speeds (like transit) and to have longer distances to travel. However, these differences persist even after controlling for those factors and others like home location. In addition, although sample sizes are limited, a disparity also appears to exist for high school trips, with non-White students facing an additional six minutes in mean travel times.